

Delete items are struck out and new items are underlined.

Asphalt Shingles
TECHNICAL GUIDE

TG 073101

1. COORDINATION ISSUES: (Not Used)

2. DESIGN ISSUES: (Not Used)

3. DRAWING NOTES: (Not Used)

4. STANDARD DRAWINGS: (Not Used)

5. SPECIFICATION NOTES:

5.1 Fasteners

5.1.1 **Problem:** DAGS has experienced occasional asphalt shingle blow-off.

5.1.2 **Possible Causes:**

5.1.2.1 **Installation Deficiencies:**

Insufficient number of nails / staples;

Improperly driven nails / staples preventing contact of adhesives or cutting into the shingle,

Shingle edge extending too far past the edge of the eave line, etc.

5.1.2.2 **Insufficient Design:** Even if shingles were properly installed, a building's height and orientation relative to the wind direction, speed, other buildings and landscape features could also have contributed to or caused the blow-off to occur.

5.1.3 **Recommendations:** Roofing industry installation standards, the building code, and product literature of the various shingle manufacturers, call for 6 nails per shingle in "high-wind" areas. "High wind areas" are not defined.

5.1.3.1 To minimize shingle blow-off problems, the consultant shall check with the facility's staff to determine whether the project site frequently experiences high-wind conditions or whether shingle blow-off has been a problem in the past.

5.1.3.2 If so, the consultant shall amend their specifications accordingly by specifying additional nails / staples or increasing the shingle's weight.

5.1.4 Fastener Materials: Specify only hot-dipped galvanized nails, except specify stainless steel fasteners for projects within 1.2 miles of the ocean.

6. GUIDE SPECIFICATION:

6.1 **Warranty: (Part 1)**

6.1.1 The warranty provisions and number of years for the warranty by this article shall take precedence over the standard provisions in the GENERAL CONDITIONS.

SPECIFIER'S NOTE: Include the roof components used on the project.

SPECIFIER'S NOTE: Length of warranty period is the primary way manufacturers distinguish asphalt shingle relative quality levels. Actual service life of asphalt shingles on a roof may be less than the warranty period. Warranty periods of 25, 30, 35, and 40 years now prevail, with some manufacturers still offering products with 20-year warranties and others offering products with limited lifetime warranties. Advertised product warranty periods may only apply to single-family residences. Some manufacturers shorten this warranty period for multiresidential and nonresidential buildings. Typical manufacturer warranty is for materials only.

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6.1.2 Special Material Warranty: Roofing Installer and Manufacturer(s) bonded warranty without monetary limitation in which roof installer and manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within the specified warranty period. Failure includes manufacturing defects and defects in materials that cause roof leaks, algae discoloration, blow-off or

damage and materials and adhesion failure due to wind conditions and failure of asphalt shingles to self-seal after a reasonable time.

~~6.1.2.1~~ Special warranty includes roofing membranes and base flashings, ~~[roofing membrane accessories] [roof insulation] [fasteners] [cover boards] [substrate boards] [vapor retarders] [roof pavers] [walkway products] and other components of the roofing system.~~

~~6.1.2.2~~ Warranty Period: ~~Ten years~~ from the Project Acceptance Date:

1) Standards-Tab Shingle: Minimum 30 years with no algae resistance warranty and 5 year wind resistance warranty.

2) Dimensional Shingle: <40> <50> years, with minimum 10 year algae resistance warranty and 5 year wind resistance warranty.

SPECIFIER'S NOTE: Increase basic wind speed to 110 or higher if site conditions require.

~~6.1.2.3~~ Wind Conditions: Warranty shall cover peak basic wind speeds up to 80 MPH, Exposure _____, and Importance Factor _____ as defined by the Building Code for the applicable building heights.

~~6.1.2.4~~ Warranty shall state the Manufacturer's acceptance that the roof was installed in accordance with the contract requirements and that the State's personnel were properly instructed in the maintenance procedures.

~~6.1.2.5~~ In the event of a failure State, Contractor, Roofing Installer and Manufacturer shall mutually agree and determine roof system failures and remedies.

6.1.3 Special Project Warranty: Submit Contractor's bonded warranty, signed jointly by Roofing Installer covering work of this section, including all components of roof system such as roofing membrane, underlayment, base flashing, roofing membrane accessories, roof insulation, and fasteners, cover boards, substrate boards, vapor retarders, roof pavers, and walkway products, for the following warranty period and conditions:

6.1.3.1 Warranty Period: ~~Three~~ Two years from the Project Acceptance Date.

6.1.3.2 Conditions: Warranty shall cover repairs or replacement of damages to the building and its finishes due to leaks.

SPECIFIER'S NOTE: Retain paragraph 6.2 only when the size or complexity of the roofing and flashing work warrants a Pre-installation Meeting. Otherwise delete paragraph 6.2 entirely.

6.2 Pre-Installation Meeting (Part 1): The General Contractor, the authorized roofing manufacturers' representatives or their independent roofing inspectors shall attend a pre-installation meeting. Include other related trades, such as sheet metal contractor, as applicable. Confirm the required participants with the Contracting Officer. Notify participants at least five days prior to meeting. Intent of the meeting is to review the preparation and installation requirements for the roofing system and to coordinate and schedule the required work.

6.3 Roofing System Manufacturer's Project Participation (Part 1): General Contractor, Roofing Installer and Roofing System Manufacturer Representative or their independent roofing inspector shall inspect the roof surfaces at the following times:

6.3.1 Prior to the start of the roofing installation,

6.3.2 At the start of the roofing application,

SPECIFIER'S NOTE: Change the number of inspections to suit magnitude and complexity of the project. A minimum of one inspection is required during the roofing application for roofs not larger than 7,000 square feet with no penetrations and with no roof top equipment mounts.

6.3.3 At least once during the roofing application, unless the Roofing System Manufacturer requires additional inspections for warranty provisions.

6.4 Submittals (Part 1): Information Card: For each roof project, furnish a typewritten information card for facility records and a card laminated in plastic, attached to the underside of the roof hatch, or as directed by the Contracting Officer. Cards shall be 8-1/2 inches x 11 inches. Information card shall identify facility name and/or facility designation (letter or number), contract number, type of roof system installed, including deck type, type of membrane, number of plies, method of application, manufacturer; manufacturer's representative contact information, insulation and cover board system and thickness; date of completion; installer's warranty expiration date; installing contractor and contact information; membrane manufacture's material warranty expiration date; warranty reference number, and warranty contact information. See Roofing Information Card on next page.

ROOFING INFORMATION CARD**FACILITY**

Building Name _____ Bldg. desig/No. _____

DAGS Job. No. _____

ROOF

Type of Roof System _____ Type of Deck _____

MEMBRANE

Type of Membrane _____ No. of Plies _____

APPLICATON

Method of Application _____ (nailed, heat applied, self-adhered, etc.)

INSULATION

Type of Insulation _____ Cover Board _____

Thickness _____ Thickness _____

INSTALLER (Roofing Contractor)

Company _____ Contact person _____

Contact No. _____

MANUFACTURER

Company _____ Representative _____

Contact No. _____

COMPLETION DATE

DATE INSTALLER'S WARRANTY EXPIRES _____

DATE MANUFACTURER'S WARRANTY EXPIRES _____

Warranty Reference No. _____ Warranty Contact person _____

Contact No. _____

END OF SECTION ~~07310~~

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OUT.**